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Correspondence

Aortic balloon occlusion: Justifiable for placenta previa without accreta?

Dear Editor,

Luo et al. [1] performed "preset" "prophylactic" intra-operative aortic balloon occlusion (IABO) in 43 patients preoperatively diagnosed with major placenta previa (PP) "and/or" abnormally invasive placenta (AIP: accreta, increta, percreta). The uterus was preserved in 88% of the patients, with median intra-operative blood loss of 500 mL, providing promising data. However, I have a concern.

My concern regards the indication of IABO. Patients pre-surgically diagnosed with PP (+) but AIP (−) (PP/AIP +/−) may not have required IABO, at least its "inflation". Luo et al.'s study population consisted of "patients whose ultrasound or magnetic resonance imaging findings revealed major PP 'and/or' placenta accreta". Of 43 patients, 24 were pre-surgically diagnosed with both PP and AIP (PP/AIP +/+), whereas 17 were pre-surgically diagnosed with only PP (PP/AIP +/−). Of the former 24 (PP/AIP +/+), 19 patients were diagnosed by image analyses and the remaining 5 were diagnosed based on clinical risk factors. Image findings indicative of AIP were described in detail, whereas clinical risk factors were not well defined. They only state "a history of at least one prior cesarean section or having had more than three previous pregnancies" as AIP risk factors. Thus, 17 (pre-surgically diagnosed) PP/AIP +/− patients (40%: 17/43) received IABO "inflation", of which 11 (26%: 11/43) were free from AIP. Although no major catheterization-related complications were observed in their study, balloon occlusion is not without adverse events. To me, inflating an aortic balloon in all these PP/AIP +/− patients may be "too much".

I partly agree with Luo et al.'s strategy: there should be some "room" for the indication of IABO. Image analyses or risk factors do not detect all AIP, which was reconfirmed by Luo et al.'s data: of 17 patients with pre-surgically diagnosed PP/AIP +/−, six patients had AIP. Furthermore, irrespective of the presence/absence of AIP, some PP causes massive life-threatening bleeding; for example, a history of repeat cesarean sections [2], a short cervix [3], or PP occupying the entire lower uterine segment on both anterior and posterior sides [2]. Individual patients may have combinations of these factors and show ambiguous image findings, such as "cannot deny the possibility of AIP". Thus, in real-world practice, not a stereotyped criterion, but an "ominous" feeling of experienced obstetricians may also be respected. As such, if attending obstetricians feel "something" ominous, "preset" placement of an aortic balloon may be justifiable even without definite image findings indicative of AIP. Even in this situation, balloon "inflation/non-inflation" should be cautiously decided in a patient-by-patient manner depending on the intra-surgical findings [4,5]: experienced obstetricians' "eyes" may help decide inflation/non-inflation.

The attending doctor is fully responsible for an individual surgery, and, thus, they should be given a relatively free hand for both "preset/non-preset" and "inflation/non-inflation" of the balloon in a patient-by-patient manner. However, "preset placement" and "prophylactic occlusion (inflation)" of the aortic balloon for "all" PP patients without pre-surgical findings of AIP may not be realistic. Patient selection for IABO should be more cautiously performed.

Conflicts of interest

The author has no conflict of interest relevant to this article.

Approval of institutional review board

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Patient anonymity and informed consent

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References

[1] Luo F, Xie L, Xie P, Liu S, Zhu Y. Intraoperative aortic balloon occlusion in patients with placenta previa and/or placenta accreta: a retrospective study. Taiwan J Obstet Gynecol 2017;56:147–52.

[2] Baba Y, Takahashi H, Ohkuchi A, Usui R, Matsubara S. Which type of placenta previa requires blood transfusion more frequently? A new concept of indiscernible edge total previa. J Obstet Gynaecol Res 2016;42:1502–8.

[3] Mimura T, Hasegawa J, Nakamura M, Matsuoka R, Ichizuka K, Sekizawa A, et al. Correlation between the cervical length and the amount of bleeding during cesarean section in placenta previa. J Obstet Gynaecol Res 2011;37:830–5.

[4] Matsubara S. Re: 'Moving from intra partum to prenatal diagnosis of placenta accreta: a quarter of a century in the making but still a long way to go'

Abbreviations used: AIP, abnormally invasive placenta; IABO, intra-operative aortic balloon occlusion; PP, placenta previa.

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Obstetricians' intra-surgical 'eyes' keep on shining. BJOG 2017 Jan 21. http://dx.doi.org/10.1111/1471-0528.14568 [Epub ahead of print].
[5] Matsubara S, Takahashi H, Baba Y, Nakamura H. Letter to the Editor on the article "Clinical evaluation of balloon occlusion of the lower abdominal aorta in patients with placenta previa and previous cesarean section: a retrospective study on 43 cases. ": the drier the surgical field, the better? Int J Surg 2017;39:148–9.

Shigeki Matsubara*
Department of Obstetrics and Gynecology, Jichi Medical University, 3311-1 Shimotsuke, Tochigi 329-0498, Japan

* Fax: +81-285-44-8505.
E-mail address: matsushi@jichi.ac.jp.